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ABSTRACT

This study investigates pro-social and anti-social behaviors portrayed on prime time and Saturday morning television during the 1975-76 season. An initial review of relevant research in this behavioral area is followed by a description of the basic content categories for pro-social and anti-social behaviors, motives and consequences of these behaviors, the measurement of act intensity, coder training program, coder reliability estimative procedures, and samples of television content. A total of 92 programs comprising 68.5 hours of viewing were analyzed for this study and results are discussed for a variety of frequency and time categories. Appendices include intensity of acts, shows by program type and representative intensity levels for both pro- and anti-social acts. (RAO)

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Pro-Social and Anti-Social Behaviors on Commercial Television in 1975-76

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The impact of television content on children's learning and performing of different social behaviors has become a major research question in the social sciences. Until recently, the focus of attention has primarily been on the effects of television on children's learning of anti-social behaviors. Now concern is also being directed toward the role of television in the development of pro-social behavior. Regardless of one's orientation in seeking answers to these questions, several research phases must be conducted sequentially. First, television content must be systematically studied for its trends and themes. Then, children's exposure patterns must be assessed. Finally field and experimental studies need to be conducted to investigate the relationship between the child's exposure and behavior patterns, and this must be done in the context of critical intervening or mediating variables. This report will detail the first step of this process.

This first step is better know as content analysis. The content analytic procedures proposed here for the determination of the quantity and quality of pro- and anti-social programming on TV expands all prior research work. We seek to determine not only what behaviors are exhibited in television content, but also if motives and consequences are evident for the behaviors. We also expand

the traditional counting of these behaviors, by assessing the degree to which they are present.

An appropriate content analytic system is best developed from the components of the theoretical framework one is testing. In this section we will first present an overview of social learning theory. Then we will examine the role of television as an agent for learning. Concurrently, we will review major prior work done in content analysis for pro- and anti-social behaviors, and begin to specify the system being utilized in the present project.

Observational Learning: Modeling Theory

Social learning theorists have used the idea of vicarious reinforcement to explain social modeling and other imitative processes. This means, in essence, that children's behavior will be affected by observation of other individuals. There has been considerable evidence to support the contention that observer behavior does change as a result of witnessing the reward-cost contingencies associated with a performer's behavior (Bandura, 1965a, 1965b). Bandura (1968) contends that knowledge gained by observing outcomes experienced by models is most influential in regulating behavior when there is ambiguity about what constitutes acceptable and punishable actions, and when the observer believes that the model's contingencies apply to the observer. Hornstein (1970) advanced this reasoning by stating that people (children and adults) seek information about behavioral expectations of society. When these expectations are not clear, observing another's behavior can provide information which can then serve to regulate the child's own behavior.

Observation of models affect behavior in two ways (Bandura and Walters, 1963). First, it is by inducing the acquisition of long-term behavioral dispositions, known as internalization, and second, by inducing the performance of imitative behavior. There are at least three possible effects on the child's

own behavior from the observation of either pro-social or anti-social performances from models. The first possible effect is to increase the child's awareness of behavioral alternatives. Models can draw attention to different courses of action, and increase the salience of social norms (cf. Bryan and Test, 1967). Second, the consequences to the model for his/her behavior provide the child with information about reward-cost contingencies which can be related to this behavior. If the child anticipates similar experiences for the same behavior, then negative consequences should lead to less imitation than positive consequences (cf. Bandura, 1965b). Third, the motives that the child attributes to a model for pro- and anti-social behavior helps the child determine how people are expected to behave in given situations. For example, when the child observes an altruistic model, he/she may learn when or under what conditions sharing is an appropriate response and will then engage in such behavior when he/she is in similar situations (cf. Aronfreed, 1970).

The initial process in social learning is attention, where the observer is exposed to the modeling stimuli. Acquisition of matching behavior at the sensory registration level occurs when the observer attends to, recognizes, and differentiates the distinctive features of the model's behavior. Attention is selectively determined by several sets of factors, including opportunity for encounter with direct or mediated models, the relevance, competence, power, and attractiveness of these models, and the observer's sensory capacities, arousal level, motivations, and reinforcement history. Bandura feels that televised models are so intrinsically interesting that they are highly effective in attracting attention.

Retentional processes are crucial because delayed imitation outside of the model's presence requires symbolic representation in memory. This mental representation process involves coding of both images and verbal symbols of observed events.

Motoric reproduction processes are the third component of modeling. The observer must process the requisite skills for physically executing the behavioral pattern.

Finally, reinforcement and motivational processes determine whether the learned behavior will be activated into overt expression. Positive incentives facilitate translation from mental acquisition to behavioral performance of matching actions. In particular, observed reinforcement contingencies provide the crucial instigational cues.

Bandura notes that the anticipation of reinforcement also influences the attentional and retentional processes; observers are more attentive to actions of effective models, and they are more likely to code utilitarian modeled responses. However, such incentives are facilitative rather than necessary conditions. Indeed, attention may be attracted by physical means: "One does not have to be reinforced, for example, to hear compelling sounds or to look at prominent visual displays" (Bandura, Grusec and Menlove, 1966, page 450). They found the same level of imitative acquisition from television stimuli regardless of advance notification that correct modeling would be rewarded.

Bandura identifies several types of modeling functions. Observational learning is the transmission of information about ways of organizing component responses into new patterns of behavior. Observers acquire novel response patterns by watching the performances of others via physical demonstrations, pictural representation, or verbal description. While adults rely on verbal modeling as the preferred mode of response guidance, children who have not developed adequate langauge skills are more dependent on visual depictions. The varied symbolic modeling portrayals on television constitute an extremely important influence:

> "The basic modeling process is the same regardless of whether the desired behavior is conveyed through words, pictures, or live actions. Different forms of modeling, however, are not always equally effective. It is frequently difficult to convey through words the same amount of information contained in pictoral or live demonstrations. Some forms of modeling may also be more powerful than others in commanding attention. Children, or adults for that matter, rarely have to be compelled to watch television, whereas verbal characterizations of the same activities would fail to hold their attention for long. One might also expect observers who lack conceptual skills to benefit less from verbal modeling than from behavioral demonstrations." (Bandura, 1971, p. 10)

The second function involves strengthening or weakening of inhibitions that govern the expression of previously learned responses. The observation of reinforcement to a model helps determine how behavioral rescrainsts are modified; vicariously punished responses tend to inhibit expressions of similar behavior, while normally prohibited responses that are rewarded (or merely ignored or not noticed) reduce inhibitory constraints.

Response facilitation is the third major function. This modeling enhancement process occurs when the model performs a socially sanctioned behavior which functions as an external reminder that elicits performance of existing responses in the same general class. Facilitation is distinguished from observational learning in that new behaviors are not acquired, and is distinguished from inhibition/disinhibition in that these types of behavior are not normally subject to internal or external restraint.

Many studies have attempted to identify the facilitators of modeling effects. These studies have sought to find out what it is about observing a model that results in the acquisition of congruent behavioral dispositions. Two processes have been examined. The first is the process of perceived similarity with the model and the second is the process of secondary reinforcement.

Perceived similarity with a model enhances the imitation of that model's behavior (Bandura and Walters, 1963). Perceived similarity entails the child

perceiving that he/she has similar traits as the model, or aspires to be like the model. If these conditions are present, imitative behavior more likely will follow.

The second antecedent condition for imitative behavior, secondary reinforcement, suggests that rewarded models are imitated and punished models are not because the consequences that are associated with the imitative responses are secondarily reinforcing (Mowrer, 1960).

Television provides the child with an array of models to choose from. This indirect or symbolic modeling may be explainable through the social learning principles discussed. This section has described the theoretical framework used to develop the present investigation of television content. It is now necessary to examine prior research in both content analysis and field and experimental studies of pro- and anti-social behaviors.

Anti-Social Content

George Gerbner and his colleagues at the Annenberg School of Communication of the University of Pennsylvania have completed annual studies of television's violent content since 1967 (Gerbner et al., 1976). They have identified violence as:

> "The overt expression of physical force (with or without weapon) against self or other, compelling action against one's will on pain of being hurt or killed, or actually hurting or killing. Must be plausible and credible; no idle threats, verbal abuse, or comic gestures with no credible violent consequences. May be intentional or accidental; violent accidents, catastrophies, acts of nature are included."(Gerbner, 1974, section C)

Three basic measures have been used in Gerbner's content analysis project, in order to assess amount of violence (Gerbner and Gross, 1974). These measures are prevalence, rate and role.

Prevalence refers to the proportion of TV hours or programs that contain any violence. Rate is the proportion of violent episodes per TV hour or program. Roles are the percent of violent characters in a TV season or sample, i.e., the percent of victims, of violent characters, of killers, and of killed characters.

Fourteen qualitative measures have been taken into consideration by Gerbner's group in order to categorize violent actions:

1. the tone, e.g., humorous, serious;
2. time, e.g., past, present, future;
3. place of violent action, e.g., U.S. or other country;
4. the setting, e.g., urban, rural, and social class of characters;
5. the presence and reaction of witnesses;
6. the context, e.g., interpersonal, small group, large groups, or act of nature, etc.;
7. human or non-human participants;
8. the familiarity of the violent opponents;
9. the presence, behavior, and role in violence of agents of the law;
10. the means used to commit the violent action, e.g., hand gun, explosive, knife. etc.;
11. the physical consequences shown in scene, e.g., portrayal of pain, suffering, expression of physical damage;
12. recovery or nonrecovery of the victim;
13. a body count and the count of injured parties; and
14. the duration of the violent act.

Other content indicators used by this group are "risk ratios" expressed as the number of "victims divided by the violents (those who commit violent acts) or violents by victims within the same groups and percents of characters involved in any violence plus percents involved in killing" (Gerbner, 1976, p. 20).

For our purposes, the trends identified from 1967-1975 are of most import. Gerbner and Gross (1976) contend that sheer program mix trends indicate that

"action" programs (crime, western, adventure) contained most of the television violence. They reported that "action" cartoons as a percent of all weekend cartoons dropped sharply in 1970, and then went upward in a moderate zig-zag like pattern to 47% in 1974, and 66% in 1975. "Action" programs on prime time TV as a percent of general (non-cartoon) programs have followed a different pattern. The percentage (60%) was about equal for 1967 and 1975, after a small increase in 1974, and a low in 1970.

Gerbner and Gross point out:

> ". . .that there has been no significant reduction in the overall Violence Index despite some fluctuations in the specific measures and a definite drop in 'family hour' violence, especially on CBS, in the current season. The 'family hour' decline has been matched by a sharp increase in violence during children's (weekend daytime) programming in the current season and by an even larger two-year rise in violence after 9 p.m. E.S.T." (p. 186)

Late evening shows have shown increases in the Violence Index for the past two or three years on all three networks. Daytime weekend shows for children on ABC and NBC showed an increase in violence in 1975. Overall, their 1975 ranking of networks in terms of violence placed NBC in first place, second to ABC and third to CBS. When considering the "family hour," NBC and CBS have declined consistently in their portrayals of violence since 1973, and ABC experienced a sharp decline from its level in 1974.

Eight of ten programs still contain some violence during prime time, and nine of ten during Saturday children's shows. The average rate of violence in 1975 was eight episodes per hour, the highest since 1969.

Gerbner et al. (1976) acknowledge that they do not yet know what the attitudinal and behavioral consequences of TV violent content are for the American audience. However, they have found indications that TV viewing "cultivates a general sense of danger and mistrust." They have found that heavy viewers of television show a "heightened sense of fear and mistrust. . .manifested in their typically more apprehensive responses to questions about their own personal

safety, about crime and law enforcement, and about trust in other people," (Gerbner and Gross, 1976).

The Pennsylvania research scheme was important in both its conception and execution, and served as a starting point for our development of content analytic procedures. Our main question was different, however. We wanted to examine the full rage of negative modelable stimuli available from television. We did not wish to restrict this study to physical violence alone. A variety of noxious behaviors other than violence are available on television. .Theft, for example, does not necessarily need to be violent, and yet is disruptive of society. Deceit and lying are unsatisfactory social behaviors. Further, they are both easier to imitate and model for young viewers, and more remindful of current social concerns for so-called white collar crimes. Verbal aggression is unpleasant and potentially injurious to an individual's self-concept. And verbal aggression is a far more frequent and likely behavior than physical aggression. Therefore, as important a sub-set of anti-social behaviors as physical violence may be, the present focus began with a more expanded set of social behaviors, as a base for tracing some of television's potential impact.

Anti-social behavior was conceptualized here as that which is physically or psychologically injurious to another person or persons whether intended or not, and whether successful or not.

Bandura (1973), in a comprehensive summary and reconceptualization of aggressive behaviors, points to the attributes of behaviors which affect their perception as aggressive by an observer. First he identifies the characteristics of the behavior itself, e.g., physical assaults, humiliation, social rebuffs, property destruction, etc. Second, he points to the intensity of the responses, since behaviors of high intensity should affect the audience in a different way than less intense ones. Third, he points to the consequences of the behavior and fourth to the intentions or motives for the action. It is this set of characteristics which provided the outline for the present approach.

The sub-set of negative behaviors studied here were those considered as modelable by social learning theorists and child psychologists. Within the broad label of anti-social behaviors, we have included physical aggression, verbal aggression, theft and deceit. The last three have not been studied in past attempts to analyze negative behaviors.

Physical aggression is the behavioral category which has the oldest tradition in content analysis, perhaps because of its visual accessibility. It has consistently been shown in laboratory experiments to be susceptible of modeling effects (Bandura, 1965, 1973; Hicks, 1965, 1968; Collins, 1970; Stein and Friedrich, 1972; Steuer, Applefield, and Smith, 1977; Ellis and Sekyra, 1972). Gerbner and his collaborators have specialized almost exclusively on physical aggression as defined above. They have been concerned largely with the use of hand guns and other firearms, explosives, clubs and other hitting instruments, knives and other slashing or stabbing instruments, ropes, chains, and other lashing instruments and attacks with one's fists or feet (Gerbner, 1974). Our categorization of physically aggressive acts subsumed all the above behaviors but also accounted for such acts as physical control or restraint of others, e.g., grabbing, shoving, pushing, holding; physical invasion of privacy, such as entering private property without permission; and elaborated fighting, in which the sequences of individual aggressive acts are indistinguishable, for example, a bar fight among 10 people concurrently.

This set of physically aggressive acts includes several anti-social behaviors not generally included in prior content analyses. However, the distinctiveness of this analysis is better identified by the systematic examination of the anti-social acts as verbal aggression, deceit and theft.

The conceptualization of verbal aggression has been guided by the work of Buss and Durkee (1963) and Gottschalk, Gleser and Springer (1963). Although little attention has been paid in the past to imitation effects, one study

underlines the importance of tapping this type of behavior. Wotring and Greenberg (1973) conducted two experiments with adolescent boys in order to test the effects of televised verbal and physical aggression on the boys' own level of verbal and physical aggression. They found a tendency for televised physical aggression to increase the level of verbal aggression, although televised verbal aggression did not increase the level of verbal aggression. The rationale underlying this study was that socialization stimuli condition both physical and verbal aggression simultaneously by generalization. Vicarious stimulation, by television for example, was hypothesized to affect behavior in the same way. To provide a broader base for examining the effects of verbal televised aggression on the verbal aggression of youngsters, this study made a major effort to quantify the verbal aggression availability on TV. It included specific examination of verbal hostility, verbal rejection of others and verbal threats.

Finally, acts of deceit and theft, although sometimes more subtle behaviors, are also disruptive of society, and readily available on television. Lying or cheating and stealing have been considered as anti-social behaviors that may be modeled by children. "Modeling experiments clearly demonstrate that dishonest models can increase deception in children" (Burton, 1976, p. 183). Stein (1967), Ross (1971), Rosenkoetter (1973), and Wolf and Cheyne (1972) have also demonstrated the imitability of these types of behaviors.

Once the occurrence of given behaviors are noted in any of these categories, it is then necessary to assess their intensity. An intensity measure can inform us as to the severity of the given behavior, or just how much of the behavior is being exhibited. According to our rationale, it may be insufficient to categorize a show as pro-social and anti-social by a sheer count of behaviors. Analysis of intensity would permit us to differentiate two shows with the same number of negative acts, or two shows with different numbers of acts of differing levels of intensity for these acts. Equally important, we can determine if

learning or acquisition of behavioral dispositions is dependent more so on frequency of behavior or severity of presentation of behavior.

Pro-Social Content

The determination as to what constitutes pro-social behavior comes from a body of psychological literature which examines the learning of positive type behaviors. Broadly speaking, pro-social behavior can be defined as that set of behaviors which is generally accepted by society as constructive, appropriate, and legal. Behaviors such as altruism, expressing concern for others, self-control and generosity fit this depiction. The learning of these types of behaviors by children follows the same process as the acquisition of anti-social type behaviors. Observational learning theory has been tested in a number of studies in regard to the learning of pro-social types of behaviors, These studies have supported the contention that observation of models will enhance children's altruistic and cooperative behaviors (Krebs, 1970; Bryan and London, 1970; Midlarsky, 1968). It has also been demonstrated that the learning of pro-social behavior can occur after witnessing a televised model eliciting that type of behavior. A series of studies conducted on charitable behavior demonstrated that children who saw a charitable model on television were more likely to share than those who witnessed a non-charitable model (Bryan, 1971; Bryan and Walbek, 1970a, 1970b). Cooperation has also been elicited more by children who witness a televised model performing in that manner.

Stein and Friedrich (1972) also demonstrated the learning of pro-social behaviors in a natural setting. Children (ages 3-5) were exposed to either aggressive programming (Batman and Superman cartoons), pro-social programming (Mister Rogers) or neutral type programming (children working on a farm). The children's behavior was observed two weeks before viewing, four weeks during viewing, and two weeks after viewing. Behaviors were categorized into two groups: Self-control, which included obeying rules, persisting in a task and

delaying gratification; and interpersonal pro-social behavior, which included cooperating, nurturing and expressing feelings. Results indicated that the self control category was enhanced by the pro-social programs and inhibited by the anti-social programs, and that children in low socio-economic classes, who were exposed to pro-social programming, increased in their positive interpersonal behaviors.

Liebert has done extensive work in the area of content analyzing pro-social behaviors on television. He and his associates analyzed 72 Saturday morning programs for pro-social content (Poulos, Harvey and Liebert, 1976). The pro-social categories were altruism, sympathy and explaining feelings, reparation for bad behavior, control of aggression, and resistance to temptation. Altruism occurred with the greatest frequency, six acts in every half hour of programming. Acts of sympathy and explaining feelings occurred at the rate of 2 1/4 per half hour. The remaining pro-social behaviors occurred very infrequently, with control of aggression least frequent, occurring less than once per hour.

In a comparison of cartoons versus live Saturday morning shows, cartoons averaged slightly higher in altruistic acts. For the other pro-social categories, the mean number of acts was greater for live shows.

Further, they compared two sample of programs to determine consistency in programming from one week to the next. Correlations between the two weeks were .56 for altruism, .82 for sympathy and explaining feelings, and .61 for resistance to temptation. They find little relationship between the two weeks of programming for reparation for bad behavior (.28) and control of aggression (.01).

However, this scheme does not assess motives and consequences of these behaviors, and it measures only the frequency of occurrence of behaviors.

These pro-social categories used by Stein and Friedrich and also by Liebert and his associates comprise our base of pro-social variables. The predominant pro-social behaviors to be analyzed in the present study encompass altruism, showing affection, expression of feelings and concern for self and others, reparation for bad behavior, self-control, and controlling others' anti-social behaviors. In addition, these acts have been examined in terms of their intensity, their motives and their consequences in order to more fully illustrate the context in which they occur on television.

Summary

Before examining the effects of television programming on our youth, one must determine what actually is being portrayed on television. This first step is content analysis. In developing a content analytic scheme, one must use a theoretical perspective to orient the necessary components of the analytic system. The content analysis procedure outlined here expands the prior work of Gerbner and Liebert by (1) expanding the range of anti-social behaviors to include other physically aggressive acts, verbal aggression, deception and thievery; (2) measuring motives and consequences; (3) measuring both pro- and anti-social behaviors in one system; and (4) measuring both the intensity of occurrence as well as the frequency of occurrence.

These components should provide a more precise and informative content analytic scheme to permit the subsequent testing of certain key notions of social learning theory.

METHODS AND PROCEDURES

This section will describe the basic content categories for pro-social and anti-social behaviors, for motives and consequences of these behavioral acts, the measurement of act intensity, the coder training program, coder reliability estimation procedures, and the sample of television content.

Sample of Television Shows

One episode in all 1975-76 prime time and Saturday morning television series was videotaped for analysis. They comprised 92 programs and 68.5 hours of television. Mid-season replacement series were also videotaped and included in the analysis. Variety shows, movies and public affairs programs were excluded.[1]

The taping commenced in early October, 1975, and concluded when one episode of each series had been taped. This continued over a four-week period, due to pre-emptions, schedule changes and cancellations.

The distribution of shows and hours of television time by network was recorded as follows:

By network:

	ABC	CBS	NBC
No. of Shows	26	34	31
No. of Hours	20.5	23.5	23.5

By program type:

	Saturday Cartoons	Saturday Non-Cartoons	Situation Comedies	Family Dramas	Action Adventure
# of Shows	16	8	26	7	30
# of Hours	9.0	4.5	13.0	7.0	30.0

By time period:

	Saturday Morning	Family Time	9-11 P.M.
# Shows	24	36	32
# Hours	13.5	26	29

Children's Viewing Preferences

Concurrent with the videotaping for purposes of content analysis, a field survey was conducted among 4th, 6th and 8th grade children in a community near Lansing, Michigan.[2] A list of all prime-time and Saturday morning series was presented, and the children marked each program they watched "every week or almost every week." From this survey, we identified the series viewed regularly by 40% or more of these children. For this report, several analyses distinguish the content contained in all television series from the content contained in those series which attained the highest viewing levels among this sample of young viewers.

Content Variables

Anti-social acts. As indicated in the opening section of this paper, the concept of anti-social behavior is that of behavior which is physically or psychologically injurious to another person, often intended to be so, but sometimes not so intended, often succeeding, but not necessarily. Here, a sub-set of behaviors, both physical and verbal, were chosen because they are generally viewed as negative or undesirable interpersonal acts within a particular social system by members of that society.

Four specific categories of acts were operationally defined within this rubric. They were acts of: 1) physical aggression, 2) verbal aggression, 3) deceit, and 4) theft.

Physical aggression included overt behaviors intended to or resulting in fright, injury or damage to oneself, another person, an animal, or physical property. The following instances of physical aggression were coded separately:

1. Abridgement of one's privacy or security, e.g., a private detective enters a suspect's apartment through an open window to search for evidence;
2. bombing;
3. burning;
4. defacing property, e.g., two girls scratch the fenders of an antique car;
5. hitting with an empty hand;
6. hitting with an object, e.g., a mallet;
7. physically threatening someone, e.g., pointing a gun at somebody;
8. shooting;
9. stabbing;
10. constraint of others, e.g., grabbing, shoving, pushing, holding; and
11. elaborated fighting, in which the sequences of individual fights or hits are indistinguishable, for example, when two men hit back and forth for two minutes.

Verbal aggression involved the sending of noxious symbolic messages. The message could take the form of rejection, verbal threat, or hostility. A noxious message was rejection when it contained criticism, insults, cursing, or a negative affective reaction, e.g., negative evaluations of a person or objects the person relates to, like "your work is terrible." Threats were warnings of intentions to cause noxious, undesirable outcomes for a person, e.g., "If you don't give me your money, I'll kill you." Hostile acts were all non-threatening or non-rejecting acts of verbal aggression conveyed by yelling, screaming or shouting, e.g., a husband shouting angrily to his wife: "Bring me a beer!"

Deceit was conceptualized as the intentional misleading of someone for purposes detrimental to an individual, group or institution. Sub-categories

of deceit were: Deception for unfair gain, or cheating, e.g., a high school student copies the results of a test from a classmate; deception for unlawful gain, or fraud, e.g., a businesswoman files an income tax report without reporting all taxable income; and deception by non-fraudulent lying, e.g., a taxi driver sees an accident but tells the police that she/he didn't so as to avoid being involved.

Theft was the intentional and deliberate taking of another person's or institution's property without right or permission. Instances of theft were exemplified by: shoplifting, e.g., a woman in a grocery store puts a package of cigarettes in her purse, then leaves without paying for them; burglary, e.g., a man enters a house through a window and takes jewelry; larceny, e.g., a boy walks into the locker room at school and removes a watch from an open locker; robbery, e.g., a man waits in an alley and robs a passerby; and extortion, e.g., a man is forced to pay money to keep his wife from learning of a love affair he is having. Theft was originally subdivided into two main categories: theft with and without confrontation. Examples of theft with confrontation are robbery and extortion. Theft without confrontation can be exemplified by shoplifting, burglary and larceny.

Pro-social acts. In the larger sense, pro-social behaviors are those deemed appropriate, redeeming and legal by society. Essentially, they are affiliative interpersonal acts, as characterized by the present analysis. In all, eight types of pro-social behaviors were analyzed. These included acts of: 1) altruism, 2) showing affection, 3) expressing feelings of self, 4) expressing feelings of others, 5) reparation for bad behavior, 6) delaying gratification/task persistence, 7) controlling others' anti-social behaviors, and 8) self-control or resisting temptation.

Altruism consists of sharing, helping and cooperating among humans or animals when engaged in non-illicit acts. Sharing was defined as the

spontaneous gift or loan of one's own possessions or anything one has to legitimately offer to another person. For example, a child gives half her lunch to a friend who lost his. Helping was defined as giving aid to another so that the other can move toward his/her goal. It included physical assistance, instructions, helping with a task, giving advice, giving requested or needed information, e.g., two people are sailing and one falls overboard. The other person rescues him from the water. Cooperating was defined as the working together by two or more individuals to achieve interdependent goals, e.g., two people putting up a camp tent.

Only those altruistic behaviors aimed toward pro-social goals were coded as altruism. Thus, if someone aided or helped in an illegal act it was not coded as altruism.

Showing affection referred to the overt display or offer of positive emotions towards humans or animals. It can be either verbal, e.g., "I love you," or physical, e.g., hugs, kisses, holding hands.

Expressing feelings was a category that was subdivided into (1) expressing feelings of self and, (2) expressing feelings of others. Expressing feelings of self consists of verbal statements explaining the feelings, thinking or action of self which attempt to effect positive outcomes. This includes attempts to increase others' understanding of self's feelings, to resolve strife, to smooth out difficulties or to alleviate tension experienced by the self. An example of expressing feelings was a husband explaining to his wife why he has been unhappy with their marriage. He explains why he is upset and how he feels. Sympathy for self, i.e., self-pity, was not so coded.

Expressing feelings of others consists of both explaining the feelings of others and expressing sympathy for others. Sympathy is a verbal or behavioral expression of concern for others and their problems. Verbal expressions of

sympathy may be directed toward the recipient him/herself or in conversation with others about the recipient. For example, a person visits someone in the hospital and expresse concern and worry about the patient's physical condition. Behavioral expression of sympathy can be displayed by putting an arm around someone.

Explaining feelings of others consists of explaining the feelings, thinking or action of others which attempt to effect positive outcomes. This includes attempts to increase the understanding of others, to resolve strife among others, or to reassure another person, e.g., a mother explains to her son the problems his father has been having at work. Again, statements explaining the feelings of others may be directed toward the recipient him/herself or expressed in conversations with others about the recipient. A combined example of sympathy and explaining feelings of others occurs when a doctor is discussing a patient with another doctor. She says, "I am very concerned about Ms. Smith. I think she has given up all hope. She feels like nobody cares about her anymore."

Reparation for bad behavior referred to behavior which was clearly intended to correct a behavior committed by the person and judged as a wrongdoing by that person. There could be several acts of reparation for a single wrongdoing. Such codeable acts included attempts to repair physical damage of some kind, admission of a mistake, apology, attempts to insure that the wrong doing would be eliminated or reduced and admitting deceit accompanied by corrective truth-telling. Sarcastic or flippant attempts at reparation were not coded.

Delaying gratification was postponing or foregoing completely a less-valued product, reward, or situation in order to achieve a potentially more-valued product, reward or situation. Relevant behaviors often involve verbalization of intent (e.g., "I'm not going to play now because I have to study for a test.")

Task persistence was action or statement pertaining to spending additional time or effort on a task so that a goal may be reached or an effort made better.

It included positive statements about working slowly or more carefully, and continuing to work on a task despite early failures. If a person took one approach to complete a task and it failed, but the person tried other approaches, this was coded as task persistence/delaying gratification. The two categories were treated together because they had been dealt with in that fashion in earlier work (Poulos, Harvey and Liebert, 1976).

Controlling others' anti-social behaviors involved non-agressive acts or statements which attempt to deter, prevent or eliminate anti-social behaviors which were occurring or were being contemplated by others, e.g., two people are having an argument and a third person tries to calm them down.

Self-control referred to withstanding temptation to engage in behaviors generally prohibited or deemed inappropriate by society (e.g., stealing, lying, cheating, killing, etc.) One could exhibit self-control in already occurring acts or in contemplated acts. For example, a boy is about to steal a class exam but decides not to.

Motives and consequences. A preliminary attempt was made to code attributes of the motives and consequences of all acts specified as pro- and anti-social. A motive was defined as the underlying reason for which a behavioral act was carried out. It is the drive or purpose for the subsequent behavior. If a motive was observable for a given act, three attributes were coded. Motives were assessed as to their basic purpose--whether they were designed primarily for material gain, e.g., for the acquisition of some object, or for psychological gain, e.g., for the acquisition of self-satisfaction. Motives were assessed as to whether they were clearly achieved during each program, or failed to be achieved. Further, coders were asked to assess the degree of selfishness in a particular motive. For this purpose, coders rated each motive on a seven-point scale, bounded by "extremely selfish" and "extremely unselfish."

A consequence was defined as a direct, major, overt behavioral result of a specific act, to either the doer, the receiver or both. The consequence could not be the act itself but rather its outcome.

If a consequence was observed for a given act, four attributes were coded. First, it was determined whether the consequence existed for the target or agent of an act. Then, the consequence was identified as either primarily physical or non-physical in its overt impact. Third, the consequence was judged as either primarily rewarding or punishing to its recipient, and its intensity coded on a five-point scale. Finally, the consequence was noted as to time of occurrence--either immediately following the behavioral act, or at some delayed time period during the program.

Coding Procedures

This section will detail the training and coding procedures of the pro/anti-social behaviors discussed in the preceding section. Two groups of trained coders were used to facilitate the content analysis of these behaviors. One group was trained to categorize the behaviors observed in the television programs. A second group was trained to code the intensity to which each coded behavior was being displayed.

Coder Training for Categorizing Behaviors

Nine undergraduates at Michigan State University were used as coders of the pro/anti-social content behaviors.[3] All coders had to understand and agree upon the conceptualizations of the behaviors. They also had to use the same criteria for determining the presence of the behaviors and they had to be able to clearly differentiate one behavior from another. The process that took place was one of negotiation of meaning and consensual establishment of a coding symbol system.

The coders had to be able to conceive of the behaviors in the abstract and yet recognize them in concrete examples. To facilitate these goals, an intensive training program was developed and carried out.

The training program involved working with the nine coders for about 50 hours. One week prior to the beginning of training, all coders were given training manuals. The coders were asked to study and familiarize themselves with the variables and the special and conditional definitions for the behaviors. Training manuals are available from the project directors.

The first step in actual training was to introduce each behavior, e.g., altruism, to the group of coders. The group and the researchers discussed the conceptualization of the variable. Discussion continued until it was clear to the researchers that all coders understood and agreed upon the operational meanings of the variables. At times, modifications in the conceptualizations were made during the discussions.

Next, discussion on the special conditions for each variable took place. The coders had to understand the different circumstances in which the variable might be present. For example, discussion took place as to why helping a friend rob a bank would not be coded as altruism. It was explained that since this behavior was an illicit act, it would not be in accord with the conceptualization. This process of discussion and negotiation of the conceptualizations and conditions of the behavior took several hours for each category of behavior coded. Practice coding then began with tapes of shows. Each time the behavior under discussion was thought to be elicited, the coders independently coded it. Discussion then took place to determine if there were any discrepancies among the coders. When all coders understood and agreed on the meaning and the criteria of the behavior, within acceptable reliability standards, a new variable was introduced and the same process was repeated.

Once all the pro/anti-social content behaviors were studied and discussed, there was practice coding for the full set of acts. The coders independently coded the first ten minutes of a show and then compared their observations. Problems or disagreements identified now were dealt with by discussion until there was consensual agreement. Three days were devoted to practice coding of TV show segments.

The Measurement of Act Intensity

Three coders rated the intensity level of pro/anti-social behaviors. The task for these coders was to quantify the extent to which the behavior was elicited. The coders were trained to make ratio comparisons between a standard example of each variable defined as "average" intensity and the coded acts of that variable. This average intensity example--Rod s--was developed for each content behavior. Each Rod s was a televised segment which portrayed the given behavior. The criteria used for determining the Rod s were first, that the Rod s should display all the components of the conceptualization of the given behavior, and second that its intensity was such that there could be segments compared to it that were less and more intense.

To clarify this, let's examine Rod s for altruism. It depicted one man helping another man pick tobacco. It was an overt act of helping someone. The helper expended energy and time to elicit helping, and risk to the helper was minimal. This was deemed an average act of altruism. Thereafter, if one viewed another incident of altruism, where one was risking his/her life to help someone or expending great effort, this should be judged more intense than average. In selecting a segment that would be used as Rod s, we considered how these behaviors were typically portrayed on television, and then tried to choose a segment that did appear to be a normative portrayal of the behavior on television.

The Rod s for physical aggression showed two men having a relatively brief fist fight. This segment was typical of televised physical aggression, and

served as the average level of intensity in this study. These criteria were used in the selection of all rods.

A ratio scale was used for the rating of intensity, where "0" represented non-existence of the given behavior, and "100" was anchored as "average," for the Rod s. For any given coded behavior, the coder made a ratio comparison between that instance and the corresponding Rod s. Thus, if an act of cooperation was coded, the intensity coders would compare it to the Rod s for altruism, and then assign it a score. If the behavior was considered twice as intense as the average segment, a score of 200 would be given; if it was estimated as half as intense as the Rod s, a score of 50 would be given. The coders could assign any non-negative integer to each coded act.

In practice, the first step in training was to familiarize the coders with Rod s for each content behavior. The coders came to associate the Rod s with the numerical value of 100. Extended discussion prevailed as to why the Rod s segment was deemed as average intensity, how this segment corresponded to the conceptualization, and what more and less intense examples of the behavior might look like. They were trained to use only the Rod s for comparison and no other subjective criteria. After this discussion of the Rod s took place, the coders were shown several television examples of the corresponding behavior. The coders then independently estimated the intensity for each example. Discussion followed as to why the viewed behavior received a score of perhaps five times average or one-third average. The coders examined each other's conception of the quantitative scale, until they were able to agree upon comparable meaning for the scale. This training process extended over two weeks for approximately 50 hours.

In Appendix E, acts in each major category are described for the mean and median levels of intensity obtained. Also, the Rod s is described.

Reliability

When actual coding began, at least two coders viewed and coded the same show. Their coding was done independently and discussion between them was not allowed. Almost 40% of all shows were coded in this manner. Reliabilities were calculated at different points in time during the coding.

First, reliabilities were estimated for what a given act was, e.g., does an observed act fit any of the pro- or anti-social content categories, and which ones does it fit? Reliabilities determined by percentage of agreement among paired coders ranged from 76% to 100%. Next, reliabilities were estimated for agreement on the sequence of occurrence of a given content act. For example, was the fifth coded act in a sequence coded in the same fashion, e.g., as altrusim. The percent agreement among paired coders ranged from 86% to 100%. Comparable reliabilities were obtained for agreement on who was the agent of a specific act, and who was the target or recipient of an act. Based on these reliability estimates, the remaining shows we assigned to a single coder.

For intensity, the two intensity coders viewed the same show and then independently estimated the intensity of each coded behavior. These intensity coders examined acts already identified by the first group of coders. Pearson correlations were calculated for the two coders for four shows. The act intensity correlations across all acts were .98, .97, .94, and .81. Based on these reliabilities, the intensity coders were then assigned to individual shows, and paired coding ceased.

RESULTS

First, we shall present results of the pro- and anti-social content analysis for all of television, and then move to breakdowns by time-of-day, by program type, and by network.

Table 1 provides the overall description of anti-social acts for the full week of television, for four/sub-categories of content--physical aggression, verbal aggression, theft and deceit. This is designed largely to identify those content categories and sub-categories which provide sufficient incidence of specific behaviors to warrant more complete analysis, and those which should either be combined or discarded for lack of incidence.

For sheer physical aggression, four specific sets of behaviors were identified as occurring more than 100 times in Table 1. Clearly, "general constraint," i.e., shoving, pushing or otherwise forcefully detaining another human being was the most frequent behavior, encompassing 38% of all acts coded as physically aggressive. The other three prominent physically aggressive behaviors were physically threatening someone (18%), shooting someone (11%), and abridging someone's privacy, e.g., breaking into their house (10%). Further, by combining both categories of hitting, another 16% of all the coded behaviors can be identified.

Thus, five sets of physically aggressive behaviors can be used to account for 93% of all the acts coded in this fashion. A variety of other acts--bombing, burning, poisoning, sexual assault, stabbing--occurred too infrequently to be a central concern.

In subsequent analyses in this paper, all acts of physical aggression were summed.

Table 1

Frequency of Anti-Social Acts
in 68 1/2 Hours of U.S. Television[1]

Anti-Social Acts	f	%
Physical Aggression		
1. Abridge Privacy	104	10
2. Bomb	10	1
3. Burn	3	-
4. Shove, Push, Control	381	38
5. Deface	21	2
6. Hit-Empty-Handed	85	9
7. Hit with Object	74	7
8. Physically Threaten	180	18
9. Poison	1	-
10. Sex Assault	0	-
11. Shoot	106	11
12. Stab	2	-
13. Extended Fight	24	2
	991	100%
Verbal Aggression		
1. Reject	430	26%
2. Threat	193	12
3. Yelling, Screaming	1006	62
	1629	100%
Theft	61	100%
Deceit	283	100%

[1] The 68 1/2 hours represent one episode of all fictional TV shows telecast in the fall of 1975, plus mid-season replacements, during prime-time and 8 a.m. - 12:30 p.m., on Saturdays, except for feature-length movies. Coded were 92 shows.

Verbal aggression was considered in three forms--rejection or insults to others, verbal threats without implication of physical harm, and general hostility, i.e., yelling or screaming at someone.

It was the last of these three which was most predominant on television. Hostility accounted for 62% of all verbally aggressive acts, rejection for 26%, and verbal threats for 12%.

In subsequent analyses in this report, all three forms of verbal aggression were summed.

Overt acts of theft occurred relatively infrequently, 61 times in all. This category of anti-social behavior was dropped from further analysis.

In contrast, deceit, lying or tricking someone occurred 283 times during the coded week.

Table 2 provides a parallel breakdown for the eight coded pro-social activities. Altruism and expressing one's feelings occurred most frequently. The former included instances of sharing, helping, and cooperating, while the latter focused on self-disclosure. Each accounted for 27% of all coded pro-social acts.

Two other behavioral categories occurred often. One was affection and the second was the expression of feelings of other people. The latter primarily included expressions of concern, sympathy and understanding.

These four groups of behaviors accounted for 90% of all coded behaviors for pro-social acts, and each was retained in this paper for further analysis. Instances of reparation of bad behavior, delay of gratification, self-control, and controlling other people's anti-social behavior were excluded.

In sum to this point, the most typical displays of negative behaviors on television are the physical restraint or hitting of another person, and verbally or physically threatening them. And deceiving them is not far behind. The most typical displays of positive behaviors are affiliative--directed toward someone else in the form of sharing or cooperating with them, showing affection, or

Table 2

Frequency of Pro-Social Acts
in 68 1/2 Hours of U.S. Television

Pro-Social Acts	f	%
1. Altruism	915	27
2. Showing Affection	528	16
3. Expressing feelings of others	668	20
4. Expressing feelings of self	921	27
5. Reparation for bad behavior	126	4
6. Delay of Gratification/Task Persistence	66	2
7. Control of Other's Anti-Social Behavior	142	4
8. Self-Control	13	-
	3379	100%

expressing concern for what is happening to them. Self-disclosure of feelings is also prominent.

Next, we transformed these basic data on raw frequencies of acts into an hourly rate. This is suggested as a more meaningful way to examine the possible impact of specific categories of acts and to make certain key comparisons. Table 3 reports the per hour rate of the most frequent acts categories for the coded week of television, and also for the sub-set of shows which were most frequently watched by a sample of elementary and middle school youngsters in the Lansing, Michigan, viewing area at the time the television programs were content analyzed.

First, it is interesting to note that the per hour occurrence of the pro- and anti-social acts retained in the analyses is quite similar. Of the 87 acts coded during each hour of television programming, 45 fit one of the four major pro-social categories, and 42 fit one of the three major anti-social categories.

On each hour of television, 13 available acts of altruism were matched by 14 acts of physical aggression. Twenty-three acts of expressing feelings of self and others competed with 24 acts of verbal aggression. And eight acts of affection vied with four deceitful acts.

In comparing these general trends with those found in the shows watched most often by the 4th, 6th and 8th grade samples, two principal differences are evident. For one, the children opted for shows with a lesser degree of verbal aggression, although that single category of behavioral acts remained paramount. For another, they watched shows which had far fewer expressions of self-feelings. That particular category of behavior is most predominant in late-evening shows, which were much less frequent in the set of most frequently watched shows. Overall, the preferred shows featured positive acts at the rate of 35 per hour, and featured negative acts at the rate of 36 per hour.

Table 3

Rate of Pro-Social and Anti-Social Acts
in 68 1/2 Hours of Shows

	Total Acts	Per Hour Rate	Preferred Shows Rate [1]
Pro-Social Acts			
1. Altruism	915	13.5	(13.1)
2. Affection	528	7.7	(6.4)
3. Expressing Feelings of Others	668	9.8	(10.4)
4. Expressing Feelings of Self	921	13.1	(5.7)
		44.5	
Anti-Social Acts			
1. Physical Aggression	991	14.5	(14.4)
2. Verbal Aggression	1629	23.8	(18.2)
3. Deceit	283	4.1	(3.5)
		42.4	

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[1] This rate is for all shows viewed weekly by 40% or more of a sample of 4th, 6th, and 8th graders in the fall, 1975. It covers 30 hours and 43 shows, identified in Appendix B.

Content in Different Time Periods

Table 4 present the distribution of content analyzed by the three key time periods analyzed--Saturday morning, the Family Hour (8 to 9 p.m.), and the remainder of prime time (9 to 11 p.m.).

Saturday morning during 1975-76 was persistently the most violent and most deceitful time block of programming on commercial television on both a relative and absolute basis. Violence was almost twice as high on Saturday morning as for prime time. Each hour contained more than 50 anti-social acts. On Saturday morning, there were an average of 20 more anti-social acts than pro-social acts. Physical aggression was as dominant as verbal aggression, and both exceeded any other behavior content category in incidence by more than one-third. Only altruistic acts occurred with nearly as much regularity. On Saturday morning shows, there was a distinct absence of self-expression of feelings.

In terms of total presentation of pro- and anti-social behaviors, the Family Hour was not particularly different from the two hours following that early evening time slot. Each contained from 46-50 positive acts each hour, and 39-41 negative acts. However, there were distinct differences in what kinds of negative acts were portrayed. The family hour had the smallest dose of physical aggression; the later hours contained nearly twice as many acts of physical aggression per hour. Within the family hour, verbal aggression was the predominant form of anti-social expression; from 9-11 p.m., verbal and physical aggression shared the screen more evenly. Thus, the family hour, created in part to minimize violence, has done so by transforming the physical manifestations of aggression into verbal ones.

Table 5 presents parallel information on content available during these time periods for the sub-set of programs most watched by the children sampled. There are some substantial differences from the prior table.

Table 4

Hourly Rate of Pro-Social and Anti-Social Behaviors

By Time Period

	Saturday Morning	Family Hour 8-9 p.m.	9-11 p.m.
Pro-Social Acts			
1. Altruism	15.5	14.7	11.2
2. Affection	3.7	9.6	7.9
3. Expressing Feelings of Others	7.3	11.5	9.3
4. Expressing Feelings of Self	4.6	13.7	17.4
Hourly Total	31.1	49.5	45.8
Anti-Social Acts			
1. Physical Aggression	22.9	8.8	15.6
2. Verbal Aggression	23.1	25.7	22.4
3. Deceit	5.6	4.3	3.3
Hourly Total	51.6	38.8	41.3
# of Shows	24	36	32
# of TV Hours	13.5	26	29

Table 5

Hourly Rate of Pro-Social and Anti-Social Behaviors

In Shows with Largest Child Audience

By Time Period

	Saturday Morning	Family Hour 8-9 p.m.	9-11 p.m.
Pro-Social Acts			
1. Altruism	17.5	14.1	7.9
2. Affection	4.1	8.9	4.4
3. Expressing Feelings of Others	9.9	10.4	10.8
4. Expressing Feelings of Self	3.3	6.6	6.4
Hourly Total	34.8	40.0	29.5
Anti-Social Acts			
1. Physical Aggression	22.3	9.0	15.9
2. Verbal Aggression	16.1	18.7	16.9
3. Deceit	5.2	3.4	2.1
Hourly Total	43.6	31.1	35.9
# of Shows	14	18	11
# of TV Hours	7.5	13.5	9

For one, the rate of codeable positive and negative behaviors per hour was lower for each time period, except for positive acts on Saturday morning. The sharpest difference, however, was fewer positive acts in the most popular programs between 9-11 p.m. for the youngsters. In this sub-set of shows, the rate of negative acts between 9-11 p.m. exceeded the rate of positive acts, which was not the overall pattern. The positive acts rate is below that of Saturday morning. The children's selection of shows from 9-11 p.m. focused on those with distinctly negative behavioral patterns.

The Saturday morning schedule remains the prime disciple of anti-social acts, with the rate of physical aggression exceeding that of verbal aggression.

Consistently, the children's favorite shows had less verbal aggression, less deceit, and more physical aggression than all shows. Also across time periods, the children's favorite shows included a much lower rate of expression of self-feelings. This probably reflects a generally higher preference for action shows than for more talkative ones.

Intensity of acts. As detailed in the methods section of this report, the intensity of each act was coded. Thus, it is possible to examine not only the frequency of occurrence but the degree of occurrence of each codeable behavior. Table 6 summarizes the intensity information, by time of programming, and provides the per hour rate information, so that the two measures may be co-examined. For each content category, a 'standard' intensity of 100 was established. Interpretation of the intensity averages then should be done as a deviation from that standard.

While acts of physical aggression occurred more frequently on Saturday morning, the individual acts were significantly more severe in the post 9 p.m. time period, ($p < .002$). Acts of deceit did differ somewhat in intensity in different time periods, ($p < .054$). Acts of verbal aggression did not differ in rate, nor in intensity across the time periods.

Table 6

Rate and Intensity of Acts

By Time Period

(Hourly Rate/Average Intensity)

	Saturday Morning (6.5 hours)	Family Hour 8-9 p.m. (26 hours)	9-11 p.m. (29 hours)
Pro-Social Acts			
1. Altruism	15.5/198	14.7/178	11.2/117
2. Affection	3.7/101	9.6/124	7.9/133
3. Expressing Feelings of Others	7.3/75	11.5/130	9.3/141
4. Expressing Feelings of Self	4.6/129	13.7/163	17.4/142
Anti-Social Acts			
1. Physical Aggression	22.9/329	8.8/306	15.6/402
2. Verbal Aggression	23.1/145	25.7/149	22.4/145
3. Deceit	5.6/151	4.3/130	3.3/168

Acts of altruism were less frequent and less intense after 9 o'clock, ($p < .001$). For the other pro-social acts, the sharpest distinction was between Saturday morning and the other two time periods. Acts of affection and expression of feelings either of others or about one's self were less frequent and less intense on Saturday morning.

A parallel analysis was made for the shows most frequently watched by young people, and is in Appendix A. In terms of anti-social behaviors, the intensity levels of preferred shows did not differ on Saturday or the Family Hour from those in Table 6. However, late evening preferred shows had higher intensity levels for both physical and verbal aggression. For example, the average intensity level of physically aggressive acts in the most watched shows after 9 p.m. was 495, compared to 402 for all shows, and for verbal aggression, it was 194, compared to 145.

Where intensity differences occurred among the pro-social acts, they were consistently in the direction of children watching more shows with more intense acts of altruism, expressing feelings of others, and self-disclosure. There was no preference for shows with more intense acts of affection.

Content in Different Program Types

Table 7 provides the basic analysis of these acts for five types of television programs--Saturday morning cartoon shows, Saturday morning non-cartoons, situation comedies, family drama shows, and action-crime programs. The specific shows included in each category are in Appendix B.

The per hour rate of occurrence of the content categories will be summarized here. Perhaps the most striking contrast is between the Saturday morning traditional cartoons and the new genre of Saturday morning shows which are not cartoons, e.g., "Isis, Shazam." Negative behaviors occurred at a rate greater

Table 7

Hourly Rate of Pro-Social and Anti-Social Behaviors

By Program Types

	Saturday Cartoons	Action-Crime	Situation Comedies	Family Drama	Sat. A.M. Non-Cartoon
Pro-Social Acts					
1. Altruism	14.3	11.5	15.9	13.7	17.8
2. Affection	2.8	5.6	17.3	8.6	5.6
3. Expressing Feelings of Others	5.8	8.8	13.7	12.0	10.4
4. Expressing Feelings of Self	5.6	18.2	18.0	5.7	2.7
Hourly Total	28.5	44.1	64.9	40.0	36.5
Anti-Social Acts					
1. Physical Aggression	28.8	17.4	7.1	8.9	11.1
2. Verbal Aggression	23.7	22.0	34.5	16.7	22.0
3. Deceit	7.3	4.8	3.3	2.3	2.2
Hourly Total	59.8	44.2	44.9	27.9	35.3
# of Shows	16	30	26	7	8
# of TV Hours	9	30	13	7	4.5

than one per minute in the cartoons and the occurrence of pro-social behaviors was half that rate. Pro-social acts occurred at a higher rate in the non-cartoons, but negative behaviors were almost half that of cartoons. The non-cartoons were particularly pared down in terms of instances of physical aggression and deceit.

On action-crime shows, positive and negative behaviors occurred at equivalent rates, and at a level which matched the average across all shows. The most pervasive rate of pro-social behaviors was found on situation comedies. Situation comedies differed from action-crime shows in the kind of negative behaviors, and not in the rate. The former focused heavily on verbal aggression, and minimized physical aggression.

The family drama shows, e.g., "The Waltons," had the lowest rate of anti-social acts in both physical and verbal aggression sub-categories. Their rate of pro-social acts was not different from Saturday non-cartoons or action-crime shows.

For specific kinds of behaviors, certain differences should be noted among program types. Within situation comedies, the pro-social acts contained much higher rates of affection and explanation of one's own feelings. The latter was matched only in action-crime programs. Acts of altruism were distributed at similar rates across program categories.

In sum, cartoons were filled with the most negative acts, the most violent ones, and the fewest positive ones. The situation comedies had the largest rate of pro-social behaviors. The family dramas had the lowest rate of anti-social acts. The action-crime behaviors distribution is the television norm.

Within the categories of negative behaviors, rates of physical and verbal aggression vary significantly among program types. Cartoons, as noted, were the clear leader in physical aggression, followed at some distance by action-crime shows. Situation comedies predominated in verbal aggression, although

the other program types maintained high rates of this behavior.

Table 8 presents parallel data for that sub-set of shows most often watched by a sample of young people.

The cartoons most watched had a lower rate of verbal aggression, but nearly the same rate of physical aggression. The action-crime shows most watched also had a sharply lower rate of verbal aggression, and also of self-expression of feelings--or more action and less talking in general.

The most preferred situation comedies were generally less pro-social than the full set of sit-coms, with no difference in their rate of negative behaviors.

Family dramas had the same distribution of acts in both preferred and non-preferred shows.

Saturday morning non-cartoons shows--the newest genre of program type--show a dramatic difference in the two tables. The favorite shows had more altruistic acts, more displays of concern and feelings of others, less physical aggression, and much less verbal aggression.

Overall, the children opted away from shows with large rates of verbal aggression, where it was possible to do so. They did not choose programs within most program types that had less physical aggression. They also shied away from programs that had high rates of self-disclosure of feelings.

Looked at from a slightly different perspective, the program types they favor had the following characteristics:

Cartoons had nearly a 2-1 ratio of negative acts to positive acts.

Saturday morning non-cartoons had a 3-1 ratio of positive to negative acts.

Situation comedies were somewhat more positive than negative; the distribution of positive acts was equivalent across categories, the negative acts were predominantly verbally aggressive.

Action crime shows that were favored had fewer positive and negative codeable acts, but the imbalance was toward negative acts.

Table 8

Hourly Rate of Acts in Shows with Largest Child Audiences

By Program Types

	Saturday Cartoons	Action-Crime	Situation Comedies	Family Drama	Sat. A.M. Non-Cartoon
Pro-Social Acts					
1. Altruism	15.5	10.0	11.7	15.3	24.5
2. Affection	2.9	2.7	15.8	7.3	7.5
3. Expressing Feelings of Others	7.6	8.9	12.0	13.8	16.0
4. Expressing Feelings of Self	3.3	4.5	11.1	5.3	3.5
Hourly Total	29.3	26.1	50.6	41.7	51.5
Anti-Social Acts					
1. Physical Aggression	27.6	17.7	6.2	12.0	7.5
2. Verbal Aggression	18.6	12.9	33.2	11.5	9.5
3. Deceit	6.9	3.7	2.8	2.5	.5
Hourly Total	53.1	34.3	42.2	26.0	17.5
# of Shows	10	10	13	4	4
# of TV Hours	5.5	10	6.5	4	2

Intensity of acts. Next, we examined the intensity information for each positive and negative act, within program types. Table 9 presents the results.

Although cartoons had the most rapid pace of physical aggression, the individual acts were less intense that those displayed in action-crime programs. However, both program types provided intensity averages that were considerably above the standard for physical aggression, and above any other program type. The differences in intensity means among the program types for physical aggression was highly significant ($p < .001$).

The intensity of acts of verbal aggression did not vary among program types, and the general level was that of mild insults, mild rejection, etc. Rates varied among program types, but intensity levels did not.

In the pro-social acts categories, intensity did not vary substantially for acts of affection, or acts of expression of feelings of self and others. Altruistic acts were most intense in the new Saturday morning shows, and least intense on the evening situation comedies ($p < .001$).

This same intensity analysis was done for the sub-set of most watched shows. The complete set of means is in Appendix C. Only for action-crime shows did the average intensities differ substantially from those presented in Table 9. The following succinctly summarizes these differences:

	Average Intensity for Action-Crime Shows	
	All Shows	Most Watched
Physical aggression	426	510
Verbal aggression	154	213
Altruism	134	197
Expression of self feelings	143	203

Table 9

Rates and Intensity of Acts

By Program Type

(Hourly Rate/Average Intensity)

	Cartoons	Action Crime	Situation Comedies	Family Drama	Sat. A.M. Non-Cartoon
Pro-Social Acts					
1. Altruism	14.3/176	11.5/134	15.9/104	13.7/178	17.8/232
2. Affection	2.8/128	5.6/121	17.3/132	8.6/118	5.6/73
3. Expressing Feelings of Others	5.8/109	8.8/136	13.7/123	12.0/143	10.4/152
4. Expressing Feelings of Self	5.6/161	18.2/143	18.0/146	5.7/196	2.7/129
Anti-Social Acts					
1. Physical Aggression	28.8/351	17.4/426	7.1/158	8.9/239	11.1/216
2. Verbal Aggression	23.7/146	22.0/154	34.5/135	16.7/157	22.0/147
3. Deceit	7.3/162	4.8/156	3.3/125	2.3/142	2.2/78

The most popular shows, in the action-cime category, were both more intensely pro-social and more intensely anti-social in acts presentation.

Content on Different Networks

Because the networks purport to have different emphases in programming, while remaining strongly competitive in each time slot, a preliminary analysis of these behavioral acts and their intensities was done for the three commercial networks.

Table 10 presents the hourly rates of these acts for the ABC, CBS, and NBC television networks.

Pro-social acts occurred at nearly-identical rates for the three networks ranging from 42-47 such acts per hour. The most noteworthy finding is the across-networks similarity for each type of pro-social behavior, rather than any substantial differences.

ABC television was clearly the most frequent provider of anti-social acts. Their rate of physical aggression was more than twice that of NBC on a per hour basis, and 2/3 again as frequent a rate as CBS. The difference in acts of verbal aggression and deceit is not remarkable, but consistently, ABC leads. Overall, ABC was generating more than 50 codeable acts of anti-social behavior per hour, and was the only network whose rate in that fashion exceeded its pro-social act rate.

Table 11 presents parallel data for that sub-group of shows most heavily watched by our sample of child viewers. There are several intriguing findings.

First, ABC remained the runaway leader in the rate of physically aggressive acts presented. Second, both ABC and CBS had more total anti-social acts than the NBC favorites. Third, the favored shows, for all three networks, had lower hourly total act rates. That is, the children preferred shows with lower (or slower) rates of virtually all these behaviors.

Table 10

Hourly Rate of Pro-Social and Anti-Social Behaviors

By Network

	ABC	CBS	NBC
Pro-Social Acts			
1. Altruism	15.6	12.0	13.2
2. Affection	5.8	9.3	7.8
3. Expressing Feelings of Others	9.2	10.6	9.2
4. Expressing Feelings of Self	11.6	14.6	14.1
Hourly Total	42.2	46.5	44.3
Anti-Social Acts			
1. Physical Aggression	20.5	13.5	10.2
2. Verbal Aggression	25.2	23.8	23.3
3. Deceit	4.7	4.6	3.3
Hourly Total	50.4	41.9	36.8
# of Shows	26	34	31
# of TV Hours	20.5	23.5	23.5

Table 11

Hourly Rate of Pro-Social and Anti-Social Behaviors

in Shows with Largest Child Audience

By Network

	ABC	CBS	NBC
Pro-Social Acts			
1. Altruism	15.4	12.6	11.4
2. Affection	5.2	9.2	3.8
3. Expression of Feeling of Others	11.9	11.6	7.3
4. Expression of Feelings of Self	6.3	6.9	3.6
Hourly total	38.8	40.3	26.1
Anti-Social Acts			
1. Physical Aggression	20.6	13.4	9.6
2. Verbal Aggression	19.8	20.3	11.6
3. Deceit	2.8	4.6	2.7
Hourly Total	43.2	38.3	23.9
# of Shows	12	19	12
# of TV Hours	9	12	9

The ABC total decreased from 93 acts per hour to 82, the CBS total from 88 to 79, and the NBC from 81 to 50. The favored shows on NBC averaged 30 fewer pro and anti-social acts per hour than did the set of all their shows. Acts of affection fell 50%, acts of self-expression fell 70%, and acts of verbal aggression fell nearly 50%.

As with the analyses in earlier sections, we examined the intensity of acts by network. The results are in Table 12. Across all shows, acts of physical aggression were more intense on both ABC and CBS than NBC ($p < .05$). Verbal aggression was most intense on ABC as well ($p < .01$). Among the pro-social acts, NBC had the most intense acts of altruism ($p < .01$).

Within the sub-set of shows most heavily viewed, the pre-eminence of ABC in anti-social acts was more exacerbated. For all three categories of anti-social acts, the ABC averages were largest, e.g., an average intensity of 455 for physical aggression, compared with 335 for CBS and 174 for NBC. Acts of altruism were most intense on NBC and acts of affection least intense on that same network's offerings. The full set of means is in Appendix D.

In sum, in terms of positive behaviors, the networks run fairly even; in terms of negative behaviors, there are persistent discrepancies among them.

Motives for Acts

As each act was observed and identified, coders determined whether an overt motive was presented for the act. If so, certain attributes of the motive were noted. To this point, we have analyzed these across all shows, and will describe the general pattern, without additional breakdown by time period or program type.

Table 13 contains the findings. Negative acts were more likely to have an explicit motive than were pro-social acts, especially physical aggression and deceit. At least 87% of those two sets of content acts were accompanied

Table 12

Rate and Intensity of Acts

By Network

(Hourly Rate/Average Intensity)

	ABC	CBS	NBC
Pro-Social Acts			
1. Altruism	15.6/148	12.0/143	13.2/191
2. Affection	5.8/130	9.3/130	7.8/117
3. Expressing Feelings of Others	9.2/122	10.6/131	9.2/149
4. Expressing Feelings of Self	11.6/151	14.6/148	14.1/153
Anti-Social Acts			
1. Physical Aggression	20.5/361	13.5/368	10.2/297
2. Verbal Aggression	25.2/163	23.8/142	23.3/135
3. Deceit	4.7/155	4.6/151	3.3/135

Table 13

Motives for Acts

	% Acts with Motive Evident	%Motives for Material Gain	%Motives Achieved	Mean Selfishness of Motive [1]
Pro-Social Acts				
1. Altruism	62%	77%	30%	2.4
2. Affection	21%	34%	37%	3.8
3. Expression of Feelings for Others	52%	47%	38%	2.8
4. Expression of Feelings of Self	40%	63%	37%	4.3
Anti-Social Acts				
1. Physical Aggression	87%	97%	8%	5.3
2. Verbal Aggression	55%	80%	26%	5.5
3. Deceit	93%	92%	14%	5.4

[1] Each motive was rated on a 1 (extremely unselfish) to 7 (extremely selfish) scale.

by observable motives. Acts of affection and self-expression were least likely to have such motives present.

The majority of all motives were clearly for material gain, in contrast to satisfying psychological needs. This almost exclusively explains all categories of anti-social acts, and the majority of altruistic and self-expression acts.

The motives that lead to aggression and deceit were very seldom achieved, whereas all other categories of acts had a success rate ranging from 26% to 38% of the instances.

Acts of altruism and expressions of concern for others, as should be the case, were perceived as relatively unselfish. Acts of affection and self-disclosure were midway between selfish and unselfish. Acts of anti-social behavior were judged as selfish.

How then can we characterize the acts in terms of their motivations?

Acts of altruism usually have a motive, they are for someone's material advantage, have a moderate success rate and are unselfish.

Acts of affection seldom have an explicit motive.

Acts of expression of feelings for others have a motive as often as not, are as often for non-material reasons as for material ones, have a 40-60 chance of being successful, and are unselfish.

Acts of self-disclosure are typically materialistic in intent, as successful as other pro-social motives, and tend toward being slightly selfish.

Acts of physical aggression and deceit have evident motives that are materialistic, seldom achieved, and selfish.

Acts of verbal aggression often have motives, are for material reasons, have a 1 in 4 chance of success and are selfish.

Consequences to Acts

As for motives, each act was analyzed in terms of whether or not one or more overt, direct, main consequences were presented. If so, certain additional content features were described, as presented in Table 14.

The results can be summarized briefly. Only three content categories of acts contained overt consequences with any regularity. For acts of altruism, 8% had consequences; for acts of physical aggression, 10% had consequences, and for acts of deceit, 14% had specific consequences. For no other category of acts did the percentage with consequences exceed 2%.

For all three of these content categories, approximately half the consequences were identified immediately after the act, and the remainder at some delayed point in time.

Consequences for altruistic acts typically occurred (62%) for the receiver and 80% of them were rewarding. Consequences for both sets of negative behaviors were nearly evenly divided between target and agent and 80% of these were punishing. The intensity of the consequences did not differ among these three acts categories.

Generally, consequences fitting the present operational defintion requirements were infrequent.

Table 14

Consequences to Acts

	Acts Of:		
	Altruism (n=915)	Physical Aggression (n=991)	Deceit (n=283)
1. % of Acts with some consequence:	8%	10%	14%
2. Immediate:	43%	55%	40%
Delayed:	57%	47%	60%
3. For Agent:	38%	52%	59%
For Target:	62%	48%	41%
4. Punishing:	20%	87%	71%
Rewarding:	80%	13%	29%
5. Average Intensity [range = 1-5(most intense)]	4.0	4.2	3.9

SUMMARY AND DISCUSSION

Spanning these data are several central focal points for summary and discussion. We shall attempt to highlight them here.

Summary

The several analyses permit the following conclusions:

1. Five behaviors comprised 93% of all physically aggressive acts. These were forceful restraint (38%), hitting (16%), shooting (11%), physical threats (18%), and abridging one's privacy (10%). Verbal aggression consisted primarily of acts of hostility, i.e., yelling or screaming at someone (62%), followed by acts of rejection (26%) and verbal threats (12%). Deceit was a third anti-social behavior, occurring frequently.

2. Four behaviors comprised 90% of all pro-social acts. These were acts of altruism (27%), affection (16%), expressing one's own feelings (27%), and expressing the feelings of others (20%).

3. For each hour of television, an average of 84 acts were coded; 43 of these were pro-social and 41 were anti-social. Verbal aggression accounted for 23 of the hourly anti-social acts per hour, physical aggression for 14, and deceit for 4. Altruism and expressing one's own feelings each accounted for 13 pro-social acts per hour, affection for 8, and dealing with other's feelings for 10.

4. Anti-social acts occurred most frequently in the Saturday morning time period, 50 per hour. During the family hour and 9-11 p.m., there were nearly 40 anti-social acts per hour. On Saturday, nearly 22 acts of physical aggression occurred each hour. The family hour contained the lowest rate of physical aggression (9 acts/hour), and the least intense acts. Physical aggression from 9-11 p.m. was the most intensive, and at the rate of 15 such acts per hour.

5. Pro-social acts occurred at a rate of 49 per hour during family hour, 44 per hour in the 9-11 p.m. time period, and 30 per hour on Saturday morning. Altruistic acts occurred most prominently on Saturday morning shows; expressing one's own feelings most often from 9-11 p.m.

6. By program type, cartoons were the most anti-social, with 60 acts per average hour, half of which were acts of physical aggression. Family dramas and Saturday morning non-cartoons shows averaged 30 anti-social acts per hour. The greatest intensity of physical aggression occurred in action-crime shows which presented those behaviors at the rate of 17 per hour.

7. Cartoons contained the lowest rate of pro-social behaviors, 29 per hour; situation comedies were the most pro-social, averaging 63 per hour. On balance, cartoons yielded 2 negative acts for each positive act; action-crime and Saturday non-cartoons, one to one; and situation comedies and family dramas, three positive acts for every two negative acts.

8. By network, ABC provided the largest set of anti-social behaviors, 49 per hour, compared to 40 for CBS and 36 for NBC; the three were very similar in the rate of pro-social behaviors, averaging 43 per hour.

9. The ABC discrepancy on anti-social behaviors resulted from its larger rate of physical aggression, 20 acts per hour, compared to 13 and 10 for the other two networks. Further, acts of physical aggression on ABC were far more intense than either of the other two networks; acts of physical aggression on NBC were least intense.

10. Motives are evident for the majority of all anti-social acts, for better than 87% of all acts of physical aggression and deceit. These motives are almost exclusively for material gain. A small proportion of the motives are achieved. Motives are less evident for pro-social behaviors, but more often for acts of altruism and self-disclosure than other pro-social acts. About one third of the motives are achieved.

Discussion

The summary discloses what is available in television in a panoramic sense. The present discussion will center on a sub-set of key research and policy questions:

What is preferred content by young viewers?

What have recent network changes in programming yielded?

What does the assessment of content intensity provide?

What of the motive and consequences of such acts?

What are the linkages between content themes and viewer impacts?

The preferred content. Sorting through the results indicates quite clearly that the content in shows most preferred by young viewers differs in several ways from the overall available content patterns. For one, they prefer shows which have fewer codeable acts, from both the pro- and anti-social acts categories. About a dozen acts less per show was averaged, and these came equivalently from positive and negative acts. But they came almost exclusively from one specific act in each grouping. The children opted away from shows which had many acts of self-disclosure, and they opted away from shows which had very high rates of verbal aggression. Perhaps they are turned off by shows that are "too talky" in general, but the selectivity of this preference within just two behavior categories is most intriguing. The children preferred shows which had lower rates of verbal hostility, and lower rates of people explaining why they feel the way they do.

Thus, this is not evidence to support a proposition that young viewers go to shows with more acts of physical aggression. The shows they prefer have the same rate of these kinds of acts as less watched shows; however, within the shows watched, the acts of physical aggression constitute a larger portion of all acts, given the drop-off in verbally aggressive acts. There is a preference

for shows in which physical aggression is more prominent. This is a key distinction. It was especially evident in the distribution of acts by time of telecast. After 9 p.m. each night, the less watched shows made available more than 50 pro-social acts per hour, and some 43 anti-social acts, while in the shows most preferred by young people, there were 30 pro-social and 36 anti-social acts. The young viewers moved to shows with fewer behavioral acts in toto, and to those with a greater proportion of anti-social behaviors.

This same phenomenon is evident with program type choices. Overall, action-crime shows had 44 positive and 44 negative acts per hour; among preferred shows, it was 26 and 34, with virtually the entire change occurring in the two behavior categories already identified.

There is one notable exception, and that is within the new grouping of Saturday morning non-cartoon shows. All of them together provided rates of 33 pro-social and 32 anti-social acts; those most watched contained 52 pro-social and 18 anti-social acts. The major increments were in acts of altruism and expressing feelings of others; the major decrement was still in verbal aggression occurrences.

Thus, taking all of television content together provides a portrait that is somewhat different from that provided by an examination of shows that are most watched. The latter typically contain fewer acts of both a pro-social and anti-social nature, but a greater proportion of the latter. In the latter physical violence is more pre-eminent.

Programming changes. In recent years, two major changes in network programming can be examined through this content analysis. The older of these has been the continuing development of Saturday morning shows which are not cartoons, and in which deliberate attempts have been made to minimize violence and maximize pro-social behaviors. Some of this has occurred within cartoons as well, but the major emphasis has gone into such shows as "Isis," and "Shazam." The second

area has been the development of the family hour from 8 to 9 each weeknight. The networks agreed to produce shows during that period which would minimize both violence and sexual themes. As this report is being written, the family hour was ruled a constitutional violation. The ruling judge decided that the networks created this hour in response to demands from the Federal Communication Commission, and not sufficiently of their own free will. Although its constitutionality may be in limbo, both last season and this season are available for analysis to determine how the content of that hour compared with other time periods.

First, let is discuss Saturday morning. It is the only time period in which anti-social acts were more excessive and more frequent than pro-social acts. No less than 50 anti-social acts occurred each hour on Saturday morning, across 14 hours of content examined. Further, it is the only time frame in which the occurrence of physical aggression (22 acts per hour) matched the occurrence of verbal aggression. At other times, the latter exceeds the former substantially. Yet, the evidence convincingly demonstrated that there were striking differences in whether it was the nine hours of cartoons that were watched or the five hours of non-cartoon programming. Among those shows most watched by young people on Saturday morning, the cartoons provided 53 acts of physical aggression per hour, and the non-cartoons, 18; the cartoons yielded 29 pro-social acts per hour, and the non-cartoons, 52. The two kinds of programs are almost mirror images of each other in terms of these social behaviors. Further, the physical violence on the cartoons was more intense than that of the other Saturday morning shows; the altruism on the non-cartoons was more intense than the cartoons. The Saturday morning choices provided marked alternatives, probably more so than at any other time period of the day or week.

The family hour concept, as implemented by the networks, and characterized by the present data, is more subtle. Its absolute rate of pro- and anti-social

behaviors was not distinctly different from the shows which began later. But, the mix of behaviors and the intensity of these behaviors, especially within the sub-set of most watched shows, identify sharp contrasts. Across all 37 shows within the family hour, there were half as many acts of physical aggression per hour, as were on during 9-11 p.m. and one-third as many in the typical Saturday show; in the family hour, there were three acts of verbal aggression for each one of physical violence.

Acts of physical aggression were considerably less intense during the family hour than later, and the verbal aggression was no more intense. Acts of altruism were more intense. However, if one examines the most watched shows during this early evening hour, the young viewers selectively watched those shows with the lesser rates of verbal aggression which contained the typical rates of physical aggression.

What can one say, then, about the family hour from this analysis? First, it presents positive behaviors at not significantly greater a rate than the shows on later. Second, it presents anti-social behaviors at the same rate, but in a mix which includes far more verbal aggression and far less physical aggression. It is almost as if the producers and show creators were consciously compensating for specific cutbacks in physical aggression, by using verbal aggression as a nominal and functional substitute. Further, the physical violence presented is less intense than later at night.

But left to their own choice, the young viewer picks and chooses among these family hour offerings to minimize verbal aggression, and to maintain physical aggression exposure.

Not to be omitted from this discussion is a second glance at network differences in content emphases. The 1975-76 and 1976-77 seasons have been hailed as a victory for the ABC network. It has abandoned its third place

position. It has done so with programming whose anti-social depictions stand far to the forefront among the three networks. Its hourly rate of physical aggression is nearly equal to the combined sum of the rates of the other two networks. And it has done so at no diminishment to its rate of accompanying verbal aggression. Furthermore, the typical act of physical aggression on ABC is significantly more intense, more vivid, than counterpart acts on the other networks, for programs most watched by youngsters. It would be presumptuous to suggest that their success is attributable to these content differences; it would be equally presumptuous to ignore that possibility.

Act intensity. Much effort went into the measurement of the intensity of each coded behavioral act. It appears to have demonstrated several major content issues. For one, the rate of occurrence of any act is largely unrelated to the intensity with which those acts occur. For example, the rate of physical aggression in cartoons exceeded the rate during action-crime shows, yet, the average intensity for the latter was greater than for the former. Critics have long pointed to sheer frequency of act-counting as a questionable practice because it ignores other attributes of the act, such as its intensity. Now we may move quickly to determine the legitimacy of that criticism given the development of these procedures to assess act intensity.

For a second, it demonstrated that intensity of acts does differentiate between time periods, between networks, and between program types with certain behavioral act categories. Among these behaviors, the ones which differed in intensity most often were acts of physical aggression and acts of altruism. There appeared to be few differences of any significance with respect to acts of verbal aggression, or to other pro-social acts.

Finally, it demonstrated just what kind of range might be obtained in assessments of act intensity. The typical act of physical aggression was three

to four times the standard act, in this case a fairly vigorous fight scene, against which all other acts of physical aggression were compared. Acts of verbal aggression and deceit were typically only one to one and one-half times their standard. Acts of altruism were typically nearly twice their standard. Acts of affection and acts of expressing self or other's feelings were even less discrepant from their standard. Of course, these comparisons are highly dependent on just what the standard was. It is not yet demonstrable whether the standard for acts of physical aggression, for example, was set too low initially. Or, what seems reasonable at this point, that certain behavioral acts are more visually and dramatically intense in television presentations than other kinds of behaviors. Nevertheless, the original "standards" for each act category were arbitrarily chosen by expert testimony. However judicious that may have been, it is now possible to compare those original standards with obtained instances of intensity, e.g., the modal or median acts for any behavioral category. As development of this measure continues, alternative standards will be derived and assessed. The distribution of intensity scores is by no means normal for most acts, and the choice of a 'best' standard may remain a difficult problem. At the same time, the more pressing question persists as to whether being able to assess the intensity of acts across programs or across time periods makes any substantial difference in understanding the impact of the stories. That question requires behavioral data from viewers and is beyond this content exercise.

Motives and consequences. Perhaps it is here that we experienced our sharpest failure, a failure to be shared with the creators of television series. The networks have often criticized act-counters for failing to account for the context in which certain anti-social behaviors occur. They have been less consistent in pointing out that shortcoming for analyses of positive behaviors found in their shows. Here, a systematic effort to identify motives and

consequences for all positive and negative acts suggests that the majority of pro-social acts do not have evident motives, whereas most of the anti-social acts do. It is possible from such an analysis to now include in indices of content behaviors some information as to the act's motive--e.g., its existence, its selfishness, its success.

As for consequences, we can do much less. Only about 1 in 10 acts of physical aggression contained consequences which were evident and codeable. No pro-social behavioral category yielded consequences at even that low level of visibility. Further attempts will be made to determine whether it is the coding scheme which is deficient or that such information is not available in a form to be decoded by young viewers.

Content impact. Content or thematic analysis alone yields only suggestive information as to potential program impact on viewers. It is too great a theoretical and methodological leap to now stipulate that television content from show A and show B will stimulate so-and-so effects. Yet, that is the raison d'etre for this analysis. The typical field study attempting to link television content to social behaviors of viewers has depended on gross measures of television exposure, e.g., what shows were watched and how often they were watched. Out of this comes a measure, for example, of how many "violent" shows an individual watched. This is then correlated with an equally general measure of the individual's tendency to be violent or physically aggressive. Such correlations typically have been mildly positive. But both the independent and dependent variable suffer from their lack of specificity.

The present content analysis will provide four different kinds of information for examining the content-impact linkage issues. For one, all shows of a given general class need no longer be considered nominally equivalent to each other. For each show, a rate of acts can be used or a total number of

acts. Thus, watching show A can be weighted differently than watching of show B if their frequency of physically aggressive acts is different.

One need not sum shows, but presumably can be more precise by looking at the overall occurrence of a given category of behavioral acts for different shows, and then linking this to measures of the individual's behavioral repertoire.

Second, the multiplicity of different behavioral acts on a given program, with its balance or imbalance of pro- and anti-social acts can be taken into account. There are no pure anti-social programs; there are no pure "violent" shows. There are shows which typically have more such behaviors, relative to other shows, and relative to other behaviors on the same show. Such information should further increase precision of measurement of the relationship between the depiction of certain kinds of content and their anticipated consequences.

Third, because of the "mix" of behaviors on any show, it seems incumbent on the social learning theories with which we typically function that multiple behavioral consequence possibilities be examined. Just as a set of shows, high in verbal aggression occurrence may elicit verbal aggression learning among young viewers, so the same theory would argue that the same shows, if they also contain more altruistic images and examples, should elicit more altruism as well. No prior studies have attempted that examination, and the present procedure makes that possible.

Finally, the introduction of the measure of intensity of each act makes it possible to look beyond sheer occurrence of a given category of behavior. One can now weight the occurrence by its judged intensity. The rationale is that more intense acts will have more impact than less intense acts, and this should be particularly so for a child viewer, who focuses more on action and excitement. Thus, for a set of shows, most typically viewed by a child, the

regularity of watching, the typical rate of occurrence of a specific category of behaviors, and the accompanying intensity for each of those behaviors are derivable. It is their composite linkage to personal behaviors which can now be correlated. And this can be done for individual time periods, specific program types, or networks.

It is possible to suggest one further major use of these data for assessing social effects. Behavioral acts are performed by specific television characters. The behaviors of individual characters are analyzable in the same manner as one would characterize entire programs. Children have their favorite shows, but typically that is an indirect way of saying that they have their favorite television characters. It is proposed that isolating a child's favorite television characters, and then examining the relationship between the typical behaviors of those characters across a number of episodes and the child's own behaviors may be an equally plausible means of assessing television's impact. The procedures for doing that have been outlined above. Its execution will raise these comments beyond the level of sheer speculation.

Appendices

Appendix A	Average Intensity of Acts in Shows with Largest Child Audience By Time Period
Appendix B	Shows By Program Type
Appendix C	Average Intensity of Acts for Shows with Largest Child Audience By Program Type
Appendix D	Average Intensity of Acts for Shows with Largest Child Audiences By Network
Appendix E	Representative Intensity Levels for Pro/Anti-Social Acts

Appendix A

Average Intensity of Acts

In Shows with Largest Child Audience

By Time Period

	Saturday Morning (7.5hrs)	Family Hour, 8-9pm (13.5 hrs)	9-11pm (9 hrs)
Anti-Social Acts			
1. Physical Aggression	334	297	495
2. Verbal Aggression	143	147	194
3. Deceit	140	123	196
Pro-Social Acts			
1. Altruism	193	229	182
2. Affection	112	126	143
3. Expressing Feelings of Others	131	129	137
4. Expressing Feelings of Self	164	206	172

Appendix B

Shows By Program Type

ACTION ADVENTURE

Barbary Coast
Baretta
Barnaby Jones
Bionic Woman *
Blue Knight
Bronk
Cannon
City of Angels
Ellery Queen
Harry O
Hawaii Five-O *
Invisible Man *
Jigsaw John
Joe Forrester
Kate McShane
Kojak *
Matt Helm
Mobile One
Movin' On
Petrocelli
Police Story
Police Woman *
Rockford Files *
Rookies *
Six Million Dollar Man *
Space 1999
Starsky and Hutch
Streets of San Francisco *
SWAT *
Switch

SITUATION COMEDIES

All in the Family *
Barney Miller
Bob Newhart *
Chico and the Man *
Cop and the Kid
Doc
Dumplings
Fay
Good Times *
Happy Days *
Jeffersons *
Joe and Sons
Laverne and Shirley *
Mary Tyler Moore *
MASH *
Maude
Montefuscos
On the Rocks
One Day at a Time *
Phyllis
Popi
Rhoda *
Sanford and Son *
That's My Mama *
The Practice
Welcome Back Kotter
When Things Were Rotten

CARTOONS

Bugs Bunny *
Emergency Plus 4 *
Fat Albert *
Hong Kong Phooey *
Josie and the Pussy Cats
New Adventures of Gilligan *
Oddball Couple
Pebbles and Bamm-Bamm *
Pink Panther *
Return to the Planet of the Apes
Scooby Doo, Where Are You *
Secret Lives of Waldo Kitty
Speed Buggy *
Tom and Jerry/Grape Ape
Underdog
Valley of the Dinosaurs *

FAMILY DRAMA

Beacon Hill
Family Holvak
Little House on the Prairie *
Sara
Swiss Family Robinson *
Three for the Road *
Waltons *

NON-CARTOON SAT. MORNING

Ghost Busters
Isis *
Land of the Lost *
Lost Saucer
Run, Joe, Run *
Shazam *
Sigmund and the Sea Monsters
Uncle Croc's Block
Westwind

MEDICAL DRAMA

Doctors Hospital
Emergency *
Marcus Welby
Medical Center
Medical Story

* Shows viewed regularly by 40% or more of a sample of 4th, 6th and 8th graders in Fall, 1975.

Appendix C

Average Intensity of Acts

for Shows with Largest Child Audiences

by Program Type

	Cartoons	Action-Crime	Situation Comedies	Family Drama	Sat. am. non-cartoon
Anti-Social Acts					
1. Physical Aggression	343	510	124	244	245
2. Verbal Aggression	144	213	135	173	137
3. Deceit	141	165	91	163	90
Pro-Social Acts					
1. Altruism	168	197	118	189	236
2. Affection	155	97	150	93	65
3. Expressing Feelings of Others	109	141	125	141	159
4. Expressing Feelings of Self	168	203	174	190	154

Appendix D

Average Intensity of Acts

for Shows with Largest Child Audiences

By Network

	ABC	CBS	NBC
Anti-Social Acts			
1. Physical Aggression	445	335	174
2. Verbal Aggression	172	154	153
3. Deceit	177	128	140
Pro-Social Acts			
1. Altruism	211	169	263
2. Affection	116	145	85
3. Expressing feelings of Others	136	126	137
4. Expressing feelings of Self	208	174	192

Appendix E

Representative Intensity Levels

for Pro/Anti-Social Acts*

A. Altruism

1. On "Movin' On," Sonny helps an old man pick tobacco. (rod s)
2. On "The Waltons," Grandma Walton goes out of her way to prepare a special lunch for her grandson, who is sick. ($\bar{x}$ intensity = 161)
3. On "Police Woman," an attorney offers helpful advice to a criminal. (median intensity = 95).

B. Showing Affection

1. On "Little House on the Prairie," the father hugs and kisses his daughter goodnight. (rod s)
2. On "Rhoda," Sandy, a friend of Brenda, puts her arms around Brenda and hugs her. ($\bar{x}$ intensity = 120)
3. On "The Waltons," Jason kisses his girlfriend. (median intensity = 92)

C. Expressing Feelings of Self

1. On "The Rookies," one of the rookies explains to an old mailman how difficult it is to carry a gun. He explains how he feels and why he feels that way. (rod s)
2. On "The Waltons," Olivia explains why she is upset about her son's involvement with a musical band. (mean intensity = 150)
3. On "The Waltons," Grandma Walton expresses her happiness with her grandson. She explains how he is making her very proud. (median intensity = 121)

D. Expressing Feelings of Other's

1. On "Medical Center," Dr. Gannon explains to a distraught daughter of a physician why her mother could not attend her birthday party and that her mother loves and cares about her very much. (rod s)
2. On "Police Woman," Pepper Anderson explains to a suspect the jealous behavior of her boyfriend. She explains both how and why he acts the way he does. ($\bar{x}$ intensity = 120)
3. On "Little House on the Prairie," the mother explains to her friend why the friend's boyfriend has not yet asked her to the town dance. (median intensity = 90)

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* The mean ($\bar{x}$) intensity is that obtained across all acts in a given category. The example is one obtained at that mean level. The same is true for the median example.

E. Reparation for Bad Behavior

1. On "Happy Days," Richie apologizes for yelling at his mother. He explains why he yelled. (rod s)
2. On "Petrocelli," Petrocelli gives a blind woman a gun and tells her to fire it. She does, and become very frightened because she believes there are actual bullets in it. He apologizes and tells her that they were blanks. ($\bar{x}$ intensity = 200)
3. On "Movin' On," one trucker apologizes to another truck driver for being sarcastic. (median intensity = 150)

F. Delay of Gratification/Task Persistence

1. On "The Waltons," the family is about to go to a county fair when they discover that their goat is missing. Grandma Walton decides not to go to the fair and continues to search for the goat. (rod s)
2. On "Mobile One," a medical team enters a man's house. He is repeatedly hostile toward them. The team members persist in questioning the man regardless of his attitude. ($\bar{x}$ intensity = 350)
3. On "Beyond the Planet of the Apes," one band of apes is waging war on another. They repeat their attacks and refuse to give up. (median intensity = 300)

G. Controlling Other's Anti-Social Behaviors

1. On "The Jeffersons," a fight between George Jefferson and a young man is about to start. A third person steps between the two and holds George back. (rod s)
2. On "Medical Story," a doctor and a nurse begin to argue over a drug dosage. Another actor comes in and verbally ends the argument. ($\bar{x}$ intensity = 150)
3. On "Mobile One," a medical team is met by rejection and angry words from a man. One of the team members tries to pacify him. (median intensity = 120)

H. Self Control

1. On "The Brady Bunch," two of the boys are deciding to lie to their sister. One decides that he cannot do this and chooses to tell her the truth. (rod s)
2. On "When Things Were Rotten," three men begin to attack another. One decides to stop. ($\bar{x}$ intensity = 150)
3. Two few incidents occurred to illustrate a median example.

I. Physical Aggression

1. In a movie, "They Only Kill Their Masters," a fight scene is occurring in a bar. Two men are trading blows with a group of men. (rod s)
2. On "Police Woman," a police officer throws a chair through a glass pane in order to enter a house. He defaces the property. ($\bar{x}$ intensity = 350)
3. On "The Waltons," Jason hits a boy who is bothering his girlfriend. (median intensity = 200)

J. Verbal Aggression

1. In "All in the Family," Archie Bunker verbally harrasses his wife for calling their physician. He yells at Edith, "What the hell are you doing?" (rod s)
2. On "The Waltons," John Boy yells at his brother in a mean and angry manner. ($\bar{x}$ intensity = 146)
3. On "Police Woman," a man hitches a ride with a truck driver. The truck driver insults and makes fun of the rider. (median intensity = 120)

K. Deceit

1. On "Joe Forrester," a young womans lies to a police officer about the man who attacked her. The audience knows it was her ex-husband. She says it was a stranger. (rod s)
2. On "Little House on the Prairie," a woman tries to make a prospective date jealous. She says that she is buying new dress material for the town dance. When the man leaves the store she tells the shopkeeper she does not want the material. ($\bar{x}$ intensity = 150)
3. On "Switch," Mac is wearing a neck brace. He pretends that he can no longer work because of his injury. (median intensity = 120)

L. Theft

1. On "Joe Forrester," a man steals a wallet from a drunk in the park. (rod s)
2. On the cartoon, "Fraidy Cat," Fraidy is mugged by three other cats and is robbed of his money. ($\bar{x}$ intensity = 300)
3. On "The Cop and the Kid," a young boy shoplifts from a local store. (median intensity = 250)

Footnotes

1. One syndicated show, "Space 1999," was coded, but not included in the analysis by network. Five medical dramas and "Walt Disney" were not included in the program type analysis. Three shows, "On the Rocks," "Sigmund and the Sea Monster," and "Medical Center" were not coded. The exclusion of variety shows, news, etc. represented a singular focus on re-occurring fictional presentations of television series.

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